

## ON THE DISCOVERY OF *MESALINA PASTEURI* (BONS 1960) IN THE EGYPTIAN WESTERN DESERT

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### INTRODUCTION

The Western Desert of Egypt is, herpetologically, one of the least known and explored regions in the Sahara. This is particularly obvious when compared with knowledge of the Algerian Sahara herpetofauna. The finding in Egypt of *Philochortus intermedius* (Kamal *et al.* 1966, Marx 1968), *Acanthodactylus longipes* (Baha El Din 1994) and *Mesalina pasteuri* (this author); suggest that many species typically regarded as western and central Saharan (*cf.* Lambert 1984) may in fact have a more uniform distribution throughout the Sahara than previously thought. The apparent discontinuity in the distribution of some of these species is most likely to be a result of the lack of herpetological coverage.

The Western Desert is one of the driest deserts on earth. With the exception of a narrow band of between 50-100 km along the Mediterranean, where meagre winter rains fall regularly; the rest of the Western Desert is virtually rainless and vegetation is restricted to oases and depressions. Siwa Oasis (*c.* 29°12'N 25°31'E), where *M. pasteuri* was recently found, is one of the five main oases of the Western Desert. It is situated in a depression about 15 m below sea level. Bounded from the north by an escarpment which rises 100 m from the floor of the depression, and from the south by the dunes of the Great Sand Sea, it is tenuously connected with Jaghbub Oasis (Libya) to the west and the Qattara Depression to the east.



Plate 1. *Mesalina pasteuri* from Siwa Oasis, Egypt

## THE OCCURRENCE OF *MESALINA PASTEURI* IN EGYPT

*Mesalina pasteuri* is a rare Saharan lizard known only from a little over a dozen localities scattered throughout the central and western Sahara. Bons (1960) initially reported the species from southern Morocco, southern Algeria and northern Niger. Gauthier (1965) recorded it in the north western Algerian Sahara. Most recently Geniez & Geniez (in press) recorded it in the Western Sahara of Morocco and Joger & Lambert (in press) in Mali. On 17 March 1994 the author found a single example of *M. pasteuri* at 29°12'N 25°40'E near Ain Zaitun, Siwa Oasis (SMB 0056, in private collection). This represents the first record of this species in Egypt, and an extension in its range of some 1,800 km north east of Bilma (18°50'N 13°30'E), northern Niger, the nearest locality from which the species was previously recorded. The species has apparently not been reported from Libya yet, but will undoubtedly be found there in the future.

The Siwa animal fits perfectly the type description of *Mesalina pasteuri*, except for having fewer dorsals, which are slightly carinated (see Plate 1). It differs from the nearest populations of *M. olivieri*, from the vicinity of Marsa Matruh (31°21'N 27°14'E), in the same features Bons (1960) had outlined for *M. pasteuri*, i.e. in having a striated dorsum lacking white ocelli and 5 instead of 4 upper labials anterior to the subocular (also see Table 1). The *M. pasteuri* from Siwa also differs from *M. olivieri* in having the lower eyelid window made up of two large transparent scales (not edged with black as in sympatric *M. guttulata*). In *M. olivieri* this is made up of 4 or more semi-transparent scales.

### ECOLOGY

*Mesalina pasteuri* is a species of soft sand biotopes (Gauthier 1965 & 1967, Lambert 1984 and Philippe Geniez in lit.). The Siwa specimen was found active at midday at the edge of the Great Sand Sea, in an area of small undulating sand dunes with sparse cover of *Alhagi maurorum* and *Zygophyllum album*. *Mesalina olivieri*, which occurs commonly along the Mediterranean coast of Egypt, inhabits fairly mesic stony hamada and does not penetrate far into the arid desert. The furthest inland example of *M. olivieri* in this region was found at 31°09'N 27°00'E, about 50 km south of the coast, and about 230 km to the north of Siwa.

In Siwa *M. pasteuri* was found in sympatry with *Acanthodactylus longipes*, *A. scutellatus*, as well as with typical *M. guttulata*. The latter was numerous on adjacent salt encrusted sabkha at the margins of salt marshes and cultivated land.

**Table 1.** Comparison with nearest *M. olivieri* populations from the vicinity of Marsa Matruh 31°21'N 27°14'E) and with *M. pasteuri* from the central Sahara and southern Morocco (based on Bons 1960).

Species / population	<i>M. pasteuri</i> (Siwa)	<i>M. pasteuri</i> based on Bons (1960)	<i>M. olivieri</i> from vicinity of Marsa Matruh
N	1	5	5
Dorsals	32	$\bar{x}$ 37.4 (34-41)	$\bar{x}$ 46.2 (42-50)
Ventrals	10	10	10
Upper labials anterior to subocular	5	$\bar{x}$ 4.9 (4-5)	$\bar{x}$ 4.1 (4-5)
Femoral pores	11	$\bar{x}$ 11.6 (10-14)	$\bar{x}$ 12.3 (10-15)
Lamellae under 4th digit	22	$\bar{x}$ 20.4 (20-21)	$\bar{x}$ 22.2 (22-23)

## CONCLUSIONS

*Mesalina pasteuri* is a new addition to the Egyptian herpetofauna, which will probably be found elsewhere in the Western Desert of Egypt, particularly in the large oases of this region.

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